

Notice of Allowability	Application No.	Applicant(s)	
	09/974,855	KOTA ET AL.	
	Examiner	Art Unit	
	Tom V. Sheng	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to reply filed on 9/20/06.
2. ☒ The allowed claim(s) is/are 1-18.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Attorney Hae-Chan Park on 9/27/2006.

In the Claims:

Claim 15, line 6, after "selected scanning mode," insert -- wherein a current of said data signal is based on said selected scanning mode,--.

Allowable Subject Matter

2. Claims 1-18 are allowed.

3. The following is an examiner's statement of reasons for allowance:

The invention is directed to a display with light emitting elements. A control circuit selects one of scanning modes and outputs a data signal and a scan control signal based on an image signal to be displayed and the selected mode. By controlling the scanning methods and the data signals, the power consumption and brightness can be adjusted according to user request, peripheral circumstances, power remaining, or display content.

Independent claims 1 and 15 identify, inter alia, the uniquely distinct features, "a control circuit ... outputs a data signal and a scan control signal ... wherein a current of

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said data signal is based on said selected scanning mode” and “wherein said scan control signal controls a scan direction of said plurality of scan lines, a number of said plurality of scan lines that are selected, and a location of said plurality of scan lines that are selected.”

Kanno et al. (US 5,898,417), hereinafter Kanno, teaches a liquid crystal display apparatus. A controller in the LCD sends mode setting signals M0-M2 to the scan driver to select from 8 scanning modes. The liquid crystal elements are voltage driven. Therefore, the data voltage levels are image signal dependent and further are not dependent on respective scanning mode selected. Thus, Kanno at least does not teach that the current of the data signal is based on said selected scanning mode.

Kim et al. (US 6,265,833 B1), hereinafter Kim, teaches a light emitting display device. Based on a signal detected by an optical sensor and converted by an optical signal converter, a controller selects from four driving modes, of which the driving voltage and driving current are set differently. The current set has nothing to do with a scanning mode and Kim does not teach any scanning mode to be selected. Thus, Kim does not teach generation of scan control signal and changing the current of data signal based on a selected scanning mode.

Moreover, since Kim's mode change has nothing to do with scan modes, the motivation is lacking. Further, even if combined, Kanno's display would be modified into a current driven liquid crystal display that would significantly change Kanno's principle of operation and not intended.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tom V. Sheng whose telephone number is (571) 272-7684. The examiner can normally be reached on 9:00am - 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amr Awad can be reached on (571) 272-7764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Tom Sheng
September 27, 2006

AMR A. AWAD
SUPERVISORY PATENT EXAMINER

